

REMARKS

This Amendment is filed in response to the Office Action of May 8, 2008 in which claims 1-22 were rejected.

I. Amendments

Claims 6 and 13 have been to be amended to the end that a satellite based positioning system receiver in general is required (instead of specifically a GPS receiver). The original disclosure can be found e.g. in par. [0035] of the published application.

In addition, claims 8, 16 and 18 have been amended to refer to a device as is also done in claim 1. Claim 16 has also been amended to move the preamble into the body of the claim.

II. Subject matter of the claims

Independent claim 1 is directed at a device comprising:

A a receiver comprising at least a first receiving chain configured to receive and process radio frequency signals in a first frequency band and a second receiving chain configured to receive and process radio frequency signals in a second frequency band;

B at least a first antenna which is connected to said first receiving chain and in addition via a switching component to said second receiving chain;

C a tuning component configured to shift a frequency response of said first antenna from said first frequency band to a second frequency band;

D a controlling portion configured to cause said tuning component to shift said frequency response of said first antenna from said first frequency band to said second frequency band and causing said switching component to connect said first antenna to said second receiving chain, in case a wideband noise is expected in said first frequency band.

Independent claims 8, 16 and 18 are directed at corresponding method and apparatuses.

Independent claim 15 is directed at a mobile telephone comprising:

- a a receiving having an antenna for receiving and a processor for processing global positioning system signals received at least in a first frequency band;
- b a tuning component responsive to a control signal for shifting a frequency response of said antenna from said first frequency band to a second frequency band;
- c a control responsive to operation of said telephone acting as a radio transmitter for providing said control signal.

III. Cited references

The Examiner cites the following two references:

US 2002/0081987A1 (*Yoshida*)

US 6,107,960 (*Krasner*)

IV. Novelty and obviousness objections

Independent claim 1

The Examiner considers features A, B and C of claim 1 to be disclosed by *Yoshida* and feature D to be rendered obvious when considering in addition *Krasner*. This estimation is contested.

The Examiner considers the antenna of feature B to be disclosed in the *Yoshida* reference with the antenna 10 or the antenna 21 of Fig. 3. However, as can be seen from Fig. 3, antenna 10 can only be connected to or disconnected from a first receiving chain. It cannot be connected to a second receiving chain. Similarly, antenna 21 can only be connected to or disconnected from a second receiving chain. It cannot be connected to a first receiving chain. Thus, neither antenna 10 nor antenna 21 corresponds to the antenna of claim 1, which is connected to a first receiving chain and via a switching component to a second receiving chain.

In the *Yoshida* reference, only antenna 30 can be connected to the first receiving chain via switch 26 and to the second receiving chain via switch 27. However, this antenna does not belong to the same device as the receiving chains. The receiving chains belong to a cellular phone 1B. Antenna 30, in contrast, is mounted to a vehicle.

Furthermore, the Examiner considers feature C to be implied by *Yoshida*, as the first receiving chain comprises a multi-band receiver 11. This is not required,

though. It is explicitly mentioned in paragraph [0053] that the radio frequency signal received by the external antenna 30 (which is the only antenna which is connectable to the receiving chains) “has various frequency bands.” Thus, the selection of the signal that are processed by the receivers 11, 20 is obviously not realized by tuning the antennas, but rather only by band-pass filters 23 and 25 (par. [0052], [0053]). At least there is not basis for assuming an implied tuning component configured to shift a frequency response of the first antenna from the first frequency band to a second frequency band.

Thus, at least features B and C are not disclosed by *Yoshida* either.

Obviously, without a tuning component being disclosed in *Yoshida*, also a controlling portion controlling such a tuning component cannot be rendered obvious by *Krasner*, in particular when considering that *Krasner* does not disclose a control of a tuning component either.

Consequently, there is no incentive to a person of ordinary skill in the art considering *Yoshida* and *Krasner* to implement a device with features B, C and D of claim 1 in addition to feature A of claim 1.

Independent claim 8

This claim is directed at a corresponding method, so the same comments apply.

Independent claim 15

This claim requires a tuning component that is controlled in response to an operation of a telephone operating as a transmitter. *Yoshida* does not disclose such a tuning component as discussed with reference to claim 1. Further, even the switching between antennas disclosed by *Yoshida* is not in response to the operation of a telephone operating as a transmitter. Rather, the mode decision evaluates a detection signal DS the adapter detector 131 detects (see par. [0064] and [0066]). This signal simply indicates whether there is an electrical connection between the cellular phone and vehicle-mounted adaptor 2A (see par. [0045]). Thus, the presented switching would not be suited as a hint for carrying out an antenna tuning in response to the operation of a telephone operating as a transmitter, even if an

antenna tuning was known from *Yoshida*.

Independent claims 16 and 18

The apparatus defined in either of these claims does not necessarily include all of the features of device of claim 1 itself. However, the implemented functions of claim 16 and the configuration of claim 18 are designed specifically for such a device so the same comments apply as for claim 1.

Dependent claims

The dependent claims are new and non-obvious already due to their reference to a respective new and non-obvious independent claim. It should, however, be pointed out that in contrast to the assumption of the Examiner, the features of claims 6 and 13 are not disclosed by *Yoshida* either. These claims require that the receiver defined in the corresponding independent claims is a satellite based positioning system receiver. Thus, this receiver is required to comprise two receiving chains (see the embodiment of Figs. 4 and 7 for example). The GPS receiver 20 of *Yoshida* only comprises one receiving chain, the other receiving chain implemented in receiver 11 does not belong to the GPS receiver.

The objections and rejections of the Office Action of May 8, 2008, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-22 to issue is earnestly solicited.

Respectfully submitted,

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